

## REMARKS

Favorable reconsideration and withdrawal of the objection and rejections set forth in the above-mentioned Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

### Claims Status

Claims 1, 2 and 6-14 remain pending in the application. Claims 1, 6, 8 and 14 have been amended to even more succinctly define the invention and/or to improve their form. It is respectfully submitted that no new matter has been added. Claims 1 and 14 are the only independent claims pending in the application.

### Claim Objections

Claims 1 through 14 are rejected under 35 U.S.C. § 112, second paragraph, in that it is unclear in Claim 1 whether "the first and second alignment members" are the same as the "lateral alignment means" and with respect to "by switching timing when the first and second alignment means move to the retreat position" how the lateral alignment means can displace the sheet bundles from each other in the conveying direction. As currently amended, the claims consistently recite "first and second lateral aligning means" and Claim 1 further recites "loading position control means for controlling the times at which the first and second lateral aligning means move from their aligning positions to their retreat positions for each sheet bundle in loading sheet bundles to be loaded onto the second loading means to displace the loading

positions on the second loading means of succeeding sheet bundles from each other along the sheet conveying direction." which is believed to clarify the operation with respect to the "lateral alignment members" and the timing features.

#### Art Rejections

Claims 1, 2, 7, 9, and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,963,722 (Matsumoto, et al.) in view of U.S. Patent No. 5,289,251 (Mandel) and further in view of U.S. Patent No. 6,357,743 (Endo). Claim 6 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto, et al. in view of Mandel and further in view of U.S. Patent No. 6,231,039 (Chung). Claim 8 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto, et al. in view of Mandel, Endo, and Chung as applied to Claim 6 and further in view of U.S. Patent No. 5,447,298 (Watanabe, et al.). Claims 10 through 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto, et al. in view of Mandel, Endo, and Chung in view of U.S. Patent No. 6,382,614 (Fukatsu, et al.).

#### Response to Art Rejections

The rejections are respectfully traversed.

Independent Claim 1 as currently amended is directed to sheet processing apparatus in which a first loading unit loads a sheet bundle of plural sheets conveyed by a sheet conveying unit. First and second lateral aligning units align opposite side edges of the sheet bundly loaded

on the first loading unit in a direction perpendicular to the sheet conveying direction by moving between retreat positions out of contact with the sheet bundle and lateral aligning positions in contact with the sheet bundle. A stapling unit performs stapling treatment with respect to a sheet bundle aligned by the first and second lateral aligning units. A sheet bundle conveying unit conveys a sheet bundle stapled by the stapling unit. A second loading unit loads sheet bundles conveyed by the sheet bundle conveying unit. A loading position control unit controls the times at which the first and second lateral aligning units move from their aligning positions to their retreat positions for each sheet bundle in the loading sheet bundles to be loaded onto the second loading unit to displace the loading positions on the second loading unit of succeeding sheet bundles from each other along the sheet conveying direction.

In Applicant's view, Matsumoto, et al. '722 discloses a sheet processing apparatus that has a sheet stacking member that stacks a sheet to be discharged, and an offset mounting member that offsets plural sheet bundles on sides in a sheet bundle takeout direction and in a direction opposite thereto, and mounts the offset bundles onto the sheet stacking member. The offset mounting member mounts the first sheet bundle on the side in the sheet bundle takeout direction. When there is a sheet bundle on the sheet stacking member, the first sheet bundle is mounted by offsetting the first sheet bundle in a direction opposite to that of the last sheet bundle mounted.

In Applicant's opinion, Mandel discloses a copier or printer that produces a sequential stream of sheets with limited time therebetween, and compiles and finishes those output sheets on-line while subsequent sheets are being printed. A non-slip sheet feeder that normally feeds copy sheets downstream to the compiler is selectively intermittently temporarily stopped holding

the lead edge area of the first copy sheet for the next set to be finished so that continued feeding of the trail end of the same sheet by a relatively closely spaced upstream feeder buckles that sheet into a buckle chamber assisted by a buckle inducing arcuate baffle extending from the other side of the sheet path. The next printed sheet is fed normally while the buckled first sheet is positively held out of its way. When the second sheet reaches the downstream feeder, it restarts to positively feed both sheets downstream to the compiler, together, but overlapped by a preset amount for registration stacking. A substantial increase is provided in the time for the preceding copy sheets to be operated on in the compiler. A plural sheet collection point may also be provided by this sheet buffering system.

Endo, in Applicant's view, discloses a sheet or set receiving post processing machine that has plural vertically spaced sheet or set receiving trays extending generally horizontally at an incline, a sheet delivering infeed with vertically spaced gates, and a vertically movable sheet sender extending horizontally between each infeed location and a selected tray. The sheet sender has a stapler for stapling sets of sheets thereon and wherein the sender has first and second offsetting devices for offsetting sets of sheets, whether or not stapled, and for feeding the sets to the trays in offset relation.

According to the invention of Claim 1 as currently amended, the first and second lateral aligning means move between retreat positions out of contact with the sheet bundle and lateral aligning positions in contact with the sheet bundle and the time at which the first and second lateral aligning means move from aligning positions to retreat positions for each sheet bundle is controlled to displace the loading positions on the second loading means of succeeding

sheet bundles from each other along the sheet conveying direction. Advantageously, the differences in times of release from the aligning positions staggers the positions of stapled areas of the succeeding sheet bundles in the sheet conveying direction.

Matsumoto et al. discloses a sheet bundle loading arrangement in which offset mounting means offsets plural sheet bundles on sides in a sheet bundle takeout direction and in a direction opposite thereto. Accordingly, Matsumoto et al. is restricted to teaching offsetting discharged sheet bundles in a direction perpendicular to the sheet conveying direction by pressing alternate sheet bundles against different sides of an alignment unit. There is, however, no suggestion in Matsumoto et al. of displacement of alternate sheet bundles along the sheet conveyance direction as in Claim 1.

Mandel et al. '251 may show an elevator/stacker 96 in Fig. 1 which stacks sheet bundles at an angle to displace stapled edges from each other. The Mandel et al. disclosure, however, is devoid of any teaching or suggestion of the operation of first and second lateral aligning means between in contact aligning and out of contact retreat positions or load position control that utilizes the times of movement of the first and second lateral aligning means from aligning to retreat positions of each sheet bundle to displace succeeding sheet bundles in the sheet conveying direction as in Claim 1.

Endo et al. may teach selectively moving aligning members 51A and 51B as shown in Fig. 2. These aligning members as shown in Fig. 6b only operate to offset in the direction perpendicular to the sheet conveyance direction. Further, Endo et al. is devoid of any disclosure of controlling the times of movement of lateral aligning means from aligning positions to retreat

positions to displace successive sheet bundles in the sheet conveyance direction as in Claim 1. Neither Matsumoto et al. nor Endo et al. teaches or suggests any arrangement to displace loading positions of succeeding sheet bundles on sheet bundle loading means from each other along the sheet conveying direction. Mandel et al. is devoid of any suggestion of control of times of movement of lateral aligning means from alignment to retreat positions to provide sheet bundle displacement. As a result, it is not seen that the addition of Endo et al.'s perpendicular direction displacement using lateral aligning units to Mandel et al.'s conveyance direction displacement devoid of any lateral aligning unit movement time control to Matsumoto et al.'s offset discharge in a perpendicular to sheet conveyance direction could possibly suggest the features of proposed Claim 1. Accordingly, it is believed that Claim 1 as currently amended is completely distinguished from any combination of Matsumoto et al., Mandel et al. and Endo et al. and is allowable.

Claim 14 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto, et al. in view of Mandel, Endo, and Chung and further in view of U.S. Patent No. 5,447,298 (Watanabe, et al.).

Independent Claim 14 as currently amended is directed to sheet processing apparatus in which a first loading unit loads a sheet bundle of plural sheets conveyed by a sheet conveying unit. Lateral aligning units align opposite side edges of the sheet bundle loaded on the first loading unit in a direction perpendicular to the sheet conveying direction. A stapling unit performs stapling treatment with respect to a sheet bundle aligned by the lateral aligning units. A sheet bundle conveying unit conveys a sheet bundle stapled by the stapling unit. A second loading unit loads sheet bundles conveyed by the sheet bundle conveying unit. A loading position control

unit controls the speed of the sheet bundle conveying unit in loading each sheet bundle to be loaded onto the second loading unit to displace the loading positions of succeeding sheet bundles from each other along the sheet conveying direction.

Applicant views Chung as disclosing a sheet post-processing apparatus in which a conveyer for conveys the sheets discharged from the image forming system. A conveying device conveys the sheets discharged from the image forming system. A pair of upper trays accommodate the sheets conveyed by the conveying devices and is horizontally moved in order to align the sheets accommodated therein and fall down the aligned sheets. A pair of upper tray driving devices provide a driving force to the upper trays and a transmission unit transmits the driving force of the upper tray driving device to the upper trays. A lower tray loads the sheets fallen from the upper trays and a lower tray driving device moves the lower tray in upper and lower directions in order to retain distance between the upper trays and the lower tray within a predetermined range. The sheet post-processing apparatus accommodates variant size sheets by a mechanism consisting of simple and cheap elements.

Watanabe et al. is seen as disclosing a finisher that binds paper sheets sequentially driven out of an image forming apparatus. The finisher moves along an edge of a stack of sheets and curves around a corner. A pair of individualy operated gripper fingers grabs the stack of sheets and moves the stack into position for finishing

It is a feature of Claim 14 as currently amended that loading position means controls the speed of the sheet bundle conveying means in loading each sheet bundle onto the second loading means to displace the loading positions of succeeding sheet bundles from each other along

the sheet conveying direction. As discussed with respect to Claim 1, Matsumoto et al. only teaches offsetting discharged sheet bundles in a direction perpendicular to the sheet conveying direction by pressing alternate sheet bundles against different sides of an alignment unit. There is, however, no suggestion in Matsumoto et al. of displacement of sheet bundles along the sheet conveyance direction or obtaining the displacement by controlling the speed of sheet bundle conveying means as in Claim 14.

Mandel et al. '251 only teaches using an elevator/stacker 96 to stack sheet bundles at an angle to displace stapled edges from each other. The Mandel et al. disclosure, however, fails to teach or suggest load position control that wherein the speed of a sheet bundle conveyor is controlled to displace loading positions of succeeding sheet bundles along the sheet conveying. Endo as discussed with respect to Claim 1, teaches selectively moving aligning members that operate only to offset in the direction perpendicular to the sheet conveyance direction and fails to teach or suggest controlling the speed a sheet bundle conveying means to displace successive sheet bundles in the sheet conveyance direction as in Claim 14. Accordingly, it is not seen that any combination of Matsumoto et al., Mandel et al. '251 and Endo suggests the features of Claim 14.

Chung may teach sheet processing apparatus but clearly discloses with respect to Fig. 13 that that sheet bundles are placed in staggered offset alignment in a direction perpendicular to the sheet conveying direction. Watanabe et al.'s disclosure of a finisher that binds paper sheet sequentially driven from an image processing apparatus with gripper fingers that grab a stack of sheets to move the stack into position for finishing is devoid of any disclosure of controlling the

speed of a sheet bundle conveyor to displace successive sheet bundles in the sheet conveyance direction as in Claim 14. Since none of the cited references in any manner teaches anything concerning controlling the speed of a sheet bundle conveyor to displace succeeding sheet bundles from each other on loading means, it is not seen that the cited combination in any manner suggests the features of Claim 14. It is therefore believed that Claim 14 as currently amended is completely distinguished from any possible combination of Matusmoto et al., Mandel et al, Endo, Chung and Watanabe et al. and is allowable.

It is also respectfully submitted that the combination rejection is not well founded. The Examiner has provided a *rationalization* for combining the teachings of the cited art based on the benefits of doing so. A combination rejection is proper only when there is some suggestion or motivation in the cited art *per se* to cause one having ordinary skill in the art to combine the teachings of the cited art. There is nothing in the cited art which supports the position that it can be combined in the manner suggested. Even if the art could be so combined, the mere fact that the art can be combined is not sufficient if there is no suggestions in the art that such a combination is desirable. For example, see ACS Hospital Systems, Inc. v. Montefiore Hospital, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

In view of the foregoing, it is respectfully submitted that independent Claims 1 and 14 are allowable over the cited art whether taken individually or in combination.

Dependent Claims

Claims 2 and 6-13 depend either directly or indirectly from one of Claim 1 and are allowable by virtue of their dependency and in their own right for further defining Applicant's invention. Individual consideration of the dependent claims is respectfully requested.

Closing Comments

It is respectfully submitted that the pending claims are allowable over the art of record and that the application is in condition for allowance.

This Amendment could not have been presented earlier in the prosecution, inasmuch as it was earnestly believed that the claims heretofore on file were in condition for allowance. No new claims have been presented. It is believed that the Examiner's familiarity with the present application will allow full consideration hereof without the expenditure of undue time and effort.

Favorable reconsideration and early passage to issue of the present application are earnestly solicited.

Applicant's attorney, William M. Wannisky, may be reached in our Washington office by telephone at (202) 530-1010. All correspondence should continue to be directed to our New York office at the below-listed address.

Respectfully submitted,

  
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